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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,885	03/30/2004	Chi-Chun Chu	CHUC3011/EM	1340
23364	7590	06/02/2006	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			PENG, CHARLIE YU	
			ART UNIT	PAPER NUMBER
			2883	

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

A7

Office Action Summary	Application No. 10/811,885	Applicant(s) CHU, CHI-CHUN	
	Examiner Charlie Peng	Art Unit 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5 and 6 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,5 and 6 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO 1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 16 March 2006 have been fully considered but they are not persuasive. Applicant argues that prior art of record (Ma et al. in view of Rickering et al.) do not teach or suggest a parabolic reflector that converts light in non-parallel paths to light in parallel paths. This argument is not found persuasive because when a light source is placed at the focal point of a parabola, the (non-parallel) light signals emitted by the light source is converted to parallel light signals toward the open end of the parabola. Though Ma and Rickering do not specifically state such a phenomenon, this is an inherent function of any parabolic reflective surface as Ma and Rickering render obvious to place the LED at the focal point of the parabolic reflective surface. (This concept has been in public use for decades, e.g., a flashlight.) See 35 USC 103(a) rejection below for details.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma in view of Rickering et al. Ma teaches an optical device used in an optical mouse comprising an LED 209 that emits light in an optical conduit 301, from an input end 305 to an output end 307 via an optical path (as represent by reference numeral

311). The optical conduit 301 is a reflective paraboloid surface. (See at least Fig. 3 and description) Ma does not teach the LED being located at a focus of the paraboloid and the reflective film being opaque. Rickering teaches an optical device comprising: a light-guiding body 21 having a light input surface (where an LED 41 with a light emitting chip 6 is located), a light emergent/output surface 22, and a light path inherently therebetween since the optical device is made to output light generated from the LED; a paraboloidal-curved reflector surface 25 for the LED, at the focus of which is located the LED chip; the paraboloidal-curved surface 25 can be provided with a opaque coating. Since the Ma reference and the Rickering reference are from the same field of endeavor (light guiding using a parabolic surface) the purpose of placing the LED on the focal point of the parabolic surface would have been recognized in the pertinent art of Ma's invention. It would have been obvious to one of ordinary skill in the art at the time the invention was made to place the LED at the focus of the parabolic optical conduit of Ma's invention. Further, when a light source is placed at the focal point of a parabola, the (non-parallel) light signals emitted by the light source is converted to parallel light signals toward the open end of the parabola. Though Ma and Rickering do not specifically state such a phenomenon, this is an inherent function of any parabolic reflective surface. (This concept has been in public use for decades, for example, a flashlight.) The motivation would be that a light source at the focal point produces a parallel light beam more intense than a scattered light beam.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

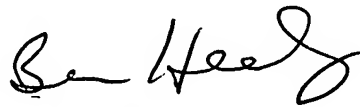
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlie Peng whose telephone number is (571) 272-2177. The examiner can normally be reached on 9 am - 6 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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BRIAN HEALY
PRIMARY EXAMINER
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